

REMARKS:

Status of the Claims

Claims 1-24 were originally filed. In the December 7, 2006 Amendment, claims 1-17 and 19-24 were canceled and claim 25 was added. In the July 2, 2007 Amendment, claims 18 and 25 are canceled and claims 26-29 are added. In this Amendment, claim 28 is canceled and new claims 30-34 are added. Support can be found throughout the specification. No new matter is introduced. Specifically, support for new claims 30-32 can be found on page 13, lines 12-15, and support for new claim 33 can be found on page 13, lines 22-25. Accordingly, upon entry of this amendment, claims 26, 27, and 29-34 will be pending. Applicants respectfully request reconsideration and withdrawal of rejection in view of the following remarks.

Claim Rejections Under 35 U.S.C. § 112

Claim 27 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Examiner alleges that there is no written description for a fragrance material with the claimed concentration range (*See*, Office Action, page 2, last paragraph to page 3, first paragraph). To recite the inventive embodiments with clarity and particularity, Applicants remove the rejected language in claim 27. Accordingly, this rejection is considered to be moot.

Claim Rejections Under 35 U.S.C. § 102

Claim 26 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Buhler *et al.* (US 3,653,921). Examiner alleges that Buhler teaches a butter flavored food additive concentrate that can be in a liquid form, which contains 1-95% by weight of an enzyme modified milk fat (meets flavor material) and 5-99% edible diluent including cellulose gums and carboxymethylcellulose (*See*, Office Action, page 3, 4th paragraph). Applicants respectfully disagree.

To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). The newly amended claim 26 recites “A

continuous liquid flavor or fragrance system comprising . . . a cellulose polymer, wherein the cellulose polymer is selected from the group consisting of hydroxypropyl cellulose and ethyl cellulose.” Applicants respectfully submit that the claim limitation of hydroxypropyl cellulose and ethyl cellulose is not disclosed by Buhler. Accordingly, it is believed that Buhler does not anticipate the claimed invention. For at least these reasons, Applicants respectfully request that this 35 U.S.C. § 102 rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over El-Nokaly (US 5,599, 555). Examiner alleges that it is within the skill level of an ordinary practitioner in the art to vary the concentrations of the ingredients taught by El-Nokaly in order to achieve the desired consistency of the final product such as a continuous liquid claimed by the present invention (*See*, Office Action, page 4, lines 14-16). Examiner further alleges that differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical (*See*, Office Action, page 5, lines 8-10). Applicants respectfully traverse this rejection and submit that the newly amended claims are patentable over El-Nokaly.

In the previous Amendment submitted on July 2, 2007, Applicants argued that El-Nokaly neither teaches nor suggests the claimed limitation of a continuous liquid and in fact teaches away from a liquid. Applicants further argued that there is no suggestion or motivation to modify El-Nokaly to achieve the present invention as such modification would render El-Nokaly unsatisfactory for its intended purpose, and would as well change its principle of operation. In response, Examiner asserts that first liquid crystals are liquids (*See*, Office Action, page 5, line 4), and secondly there is no need to modify El-Nokaly since Applicants’ claimed invention does not preclude the use of liquid crystals (*See*, Office Action, page 5, lines 8-9). Examiner further asserts that the limitation of a continuous liquid, but not of an isotropic solution, is not considered to be particularly limiting as it would not preclude the liquid crystals of El-Nokaly (*See*, Office Action, page 5, lines 11-13).

First, Applicants respectfully submit that, as addressed in details by El-Nokaly, liquid crystals are neither solids nor liquids. El-Nokaly defines liquid crystals as follows:

The liquid crystalline state exists between the boundaries of the solid phase and the isotropic liquid phase (i.e. an intermediate between the three dimensionally ordered crystalline state and the disordered dissolved state) (*See*, El-Nokaly, col. 1, lines 25-28).

It is important to understand that liquid crystals are substances that possess mechanical properties resembling those of fluids yet are capable of transmitting polarized light (birefringence) under static conditions (*See*, El-Nokaly, col. 2, lines 36-39).

... [L]iquid crystals are distinguishable from polymeric systems which are isotropic solutions, pure solids, simple mixtures of solids and liquids and rigid isotropic polymeric gels. Rigid gels do not flow under shear like liquid crystals. Also, when viewed with a polarized light microscope, liquid crystals show identifiable birefringence, as, for example, planar lamellar birefringence, whereas when isotropic solutions and rigid gels are viewed under polarized light, both show dark fields (*See*, El-Nokaly, col. 3, lines 37-40).

It is also evident from El-Nokaly's disclosure of the phase behavior of a soluble polymer in a solvent that a liquid is different from a liquid crystal. Not only they develop at different stages, but also exist as distinct phases (*See*, El-Nokaly, col. 2, lines 24-35).

The claimed invention, consistent with El-Nokaly's definition, specifies that a liquid is not a liquid crystal:

Those with skill in the art will appreciate that a liquid is defined by a disordered or random structure with the disordered dissolved state throughout the solvent. These systems are also called isotropic solutions. This is contrast to a solid material that has a specific or defined structure, usually referred to as a crystalline structure. The present invention does not contemplate the liquid crystalline structures that are defined as having well defined viscosity and light birefringence properties as described more fully in U.S. Pat. No. 5,599,555 (*See*, Specification, page 5, lines 3-12).

Accordingly, Applicants respectfully submit that one skilled in the art would recognize that liquid crystals are not liquids. Further, based on the evidence outlined above, one skilled in the art would understand that a liquid crystal in El-Nokaly and a

continuous liquid of the claimed invention are mutually exclusive. Nevertheless, in order to advance the prosecution, Applicants amend claims to incorporate the proviso that the continuous liquid system is not a liquid crystalline. Support can be found in the originally filed specification (*See*, Specification, page 5, lines 8-12). This amendment merely recites the inherent property of a continuous liquid and should not be construed as narrowing the scope of the claimed invention. Applicants respectfully submit that the newly amended claims clearly and specifically recite a liquid system. Accordingly, it is believed the pending claims are patentable over El-Nokaly.

Secondly, with respect to Examiner's assertion that the present invention does not preclude the liquid crystals of El-Nokaly, Applicants respectfully submit that the newly amended claims clearly and specifically exclude the liquid crystals of El-Nokaly. Accordingly, this assertion is believed to be moot.

Thirdly, Applicants maintain that the El-Nokaly disclosure is distinct from the claimed invention. Arriving at a liquid as claimed from a liquid crystal of El-Nokaly requires modification, and such modification would render El-Nokaly unsatisfactory for its intended purpose, and would also change its principle of operation. Upon reviewing El-Nokaly, one skilled in the art would understand that it is a liquid crystal, an intermediate phase between the solid and the liquid phases, the purpose of its invention (*See*, El-Nokaly, col. 9, lines 1-5; col. 3, lines 25-28). Even more specifically, El-Nokaly expressly states that its invention is drawn to a particular form of liquid crystal, a lyotropic liquid crystal, but not a thermotropic, heat or magnetically induced, liquid crystal (*See*, El-Nokaly, col. 2, lines 15-24). Accordingly, it is believed that one skilled in the art would not be suggested or motivated, upon reviewing El-Nokaly, to modify its teaching to the extent that a fundamental change of inventive focus would be made. Thus, the teaching of El-Nokaly is not sufficient to render the claimed invention obvious. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Lastly, the claimed invention specifically recites a cellulose polymer of hydroxypropyl cellulose or ethyl cellulose. It is particularly disclosed in the present specification that the cellulosic material must be soluble at least in organic solvents, and ethyl cellulose which is only soluble in organic solvents and hydroxypropyl cellulose which is soluble in both organic solvents and water, are the currently preferred cellulosic materials (*See*, Specification, page 6, lines 1-11). In contrast, a polymer that is soluble in a polar solvent like water is preferred by El-Nokaly (*See*, El-Nokaly, col. 5, lines 37-42 and lines 53-56). In fact, the claimed invention states explicitly that methylcellulose and hydroxypropyl methyl cellulose, two celluloses suitable for and claimed by El-Nokaly, will not function (*See*, Specification, page 6, lines 15-19). Further, one skilled in the art would recognize that many polysaccharide polymers disclosed in El-Nokaly, for example, sodium alginates, sodium carboxymethylcellulose polymers, Chitosan, and Chitin are not generally organically soluble, and, therefore, would not be useful for the present invention (*See*, El-Nokaly, col. 6, lines 55-67). Thus, the claimed invention has demonstrated the criticality of the polymer types to provide a composition for the intended use. Accordingly, Applicants respectfully submit that the claimed invention is non-obvious in view of El-Nokaly (*See*, MPEP 2144.04).

Accordingly, Applicants respectfully submit that the claimed invention is patentable over El-Nokaly. For at least these reasons, Applicants respectfully request that this 35 U.S.C. § 103 rejection be withdrawn.

CONCLUSION:

In view of the foregoing, Applicants respectfully request reconsideration, withdrawal of rejections, and allowance of all claims now present in the application.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment to the Deposit Account No. 12-1295.

Respectfully submitted,



Date: October 12, 2007

XuFan Tseng (Reg. No. 55,688)
International Flavors & Fragrances Inc.
521 West 57th Street
Law Department – 10th Floor
New York, NY 10019
Telephone: (212) 708-7163